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By C. J. Wabeck and W. C. Skoglund*

BROILER growth and feed standards provide a means whereby the commercial broiler grower may compare his flock against a standard for growth, feed consumption, and feed conversion at different age levels. In order to meet competition, every effort should be made to meet or exceed these standards.

The Department of Poultry Science, at the University of New Hampshire, has published two bulletins, in the past, Station Bulletin 401 in 1952 and Station Bulletin 466 in 1959, to provide up-to-date information on growth and feed standards. Due to rapid improvements in feed, management recommendations, and strains of broilers, such standards are outdated and new up-to-date figures are needed.

Data was obtained from four commercially available strains of broilers during the period of 1962-63. The birds were assigned randomly by strain to pens of 140 birds each, at the rate of one square foot per bird. A total of eight pens were used for each trial. The chicks were brooded by a central hot water heating system. A four foot watering trough in each pen provided approximately 0.8 inches per chick of watering space. Feeder capacity was increased proportionately with age until four weeks of age when approximately 3.1 inches of feeder space was provided for each bird for the duration of the trial. A high energy broiler feed in crumble form was fed for the first three weeks of age, and pellets were fed for the remainder of the trial. A total of 4,480 birds were reared in four different trials during all seasons of the year.

Table I presents the average weekly weights and gains for the males, females, and mixed sexes.

Table II presents the weekly and cumulative feed consumption and feed conversion figures.

Table III shows the comparative figures for 1953, 1959 and 1963 for broiler weight, feed consumption and conversion.

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Table 1. Weekly Average Weight and Gain for Commercial Broilers, 1962-63

	Males		Females		Mixed Sexes	
Week	Avg. Wgt.	Gain/Week	Avg. Wgt.	Gain/Week	Avg. Wgt.	Gain/Week
Initial	.09	——	.09	——	.09	——
1	.23	.14	.22	.13	.23	.14
2	.48	.25	.45	.23	.47	.24
3	.87	.39	.77	.32	.82	.35
4	1.32	.45	1.14	.37	1.23	.41
5	1.86	.54	1.58	.44	1.72	.49
6	2.52	.66	2.06	.48	2.29	.57
7	3.23	.71	2.61	.55	2.92	.63
8	3.90	.67	3.13	.52	3.52	.60
9	4.61	.71	3.64	.51	4.13	.61

Table 2. Weekly and Cumulative Feed Consumption and Feed Conversion for Mixed Sex Commercial Broilers, 1962-63

	Feed Consumption per Broiler		Feed Conversion*	
Week	Weekly	Cumulative	Weekly	Cumulative
1	.16	.16	1.23	1.23
2	.36	.52	1.49	1.38
3	.60	1.12	1.68	1.53
4	.82	1.94	1.94	1.67
5	1.01	2.95	2.01	1.79
6	1.28	4.23	2.14	1.87
7	1.44	5.67	2.35	1.95
8	1.64	7.31	2.77	2.10
9	1.78	9.09	2.91	2.23

* Pounds of feed required to produce one pound of live weight.

Table 3. Comparative Figures 1953[1], 1959[2], and 1963, for Broiler Weights, Feed Consumption and Conversion.

	Average Body Weight For Mixed Sexes			Cumulative Feed Consumption			Cumulative Feed Conversion		
Week	1953	1959	1963	1953	1959	1963	1953	1959	1963
Initial	.10	.09	.09	——	——	——	——	——	——
1	——	.19	.23	——	.14	.16	——	.74	1.23
2	.37	.37	.47	.47	.44	.52	1.26	1.19	1.38
3	——	.65	.82	——	.93	1.12	——	1.43	1.53
4	.91	1.04	1.23	1.65	1.61	1.94	1.81	1.55	1.67
5	——	1.51	1.72	——	2.53	2.95	——	1.68	1.79
6	1.51	1.99	2.29	3.38	3.59	4.23	2.24	1.80	1.87
7	——	2.50	2.92	——	4.84	5.67	——	1.94	1.95
8	2.35	3.01	3.52	5.71	6.28	7.31	2.43	2.09	2.10
9	——	3.57	4.13	——	7.84	9.09	——	2.20	2.23
10	3.26	4.05	——	8.70	9.39	——	2.67	2.32	——

[1] Potter, L. M., and R. C. Ringrose, 1953. Growth and Feed Standards for New Hampshire. Station Bulletin 401, N. H. Agricultural Experiment Station.

[2] Reed, Willis S., and W. C. Skoglund, 1959. Growth and Feed Standards for Broilers Station Bulletin 466, N. H. Agricultural Experiment Station.

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	1953	1959	1963	1953	1959	1963	1953	1959	1963
Initial	.10	.09	.09	——	——	——	——	——	——
1	——	.19	.23	——	.14	.16	——	.74	1.23
2	.37	.37	.47	.47	.44	.52	1.26	1.19	1.38
3	——	.65	.82	——	.93	1.12	——	1.43	1.53
4	.91	1.04	1.23	1.65	1.61	1.94	1.81	1.55	1.67
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